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NOTICE OF ALLOWANCE AND ISSUE FEE DUE

LN21/1027

COOLEY GORWARD CASTRO HUDDESON & TATUM  
FIVE PALO ALTO SQUARE  
3000 EL CAMINO REAL  
PALO ALTO CA 94306

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
08/660,418	06/07/96	636	CHEN, A	2782 10/27/98
First Named Applicant	LUDWIG,	35 USC 154(b) term ext. =	0 days.	

TITLE OF INVENTION

SYSTEM FOR PROVIDING A DIRECTORY OF AV DEVICES AND CAPABILITIES AND CALL PROCESSING SUCH THAT EACH PARTICIPANT PARTICIPATES IN THE EXTENT OF CAPABILITIES AVAILABLE (AS AMENDED)

ATTYS DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
2	VCOR-001/050	395-200.570	K33 UTILITY	YES	\$660.00	01/27/99

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.**

**THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.**

**HOW TO RESPOND TO THIS NOTICE:**

**I. Review the SMALL ENTITY status shown above.**

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

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III. All communications regarding this application must give application number and batch number. Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

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SERIAL NUMBER 087660,418 FILING DATE 06/07/96 FIRST NAMED APPLICANT LUDWIG ATTORNEY DOCKET NUMBER VOR-001

LM21/1027  
COOLEY GODWARD CASTRO HUDDLESON & TATUM  
FIVE PALO ALTO SQUARE  
3000 EL CAMINO REAL  
PALO ALTO CA 94306

EXAMINER  
CHEN, A

ART UNIT 2782 PAPER NUMBER

14/  
10/27/96

DATE MAILED

### NOTICE OF ALLOWABILITY

#### PART I.

1. ☒ This communication is responsive to AMDT E filed on 8/17/98
2. ☐ All the claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice Of Allowance And Issue Fee Due or other appropriate communication will be sent in course.
3. ☒ The allowed claims are 6, 9-15, 17-18, 20-23, 26-28, 34-40, 42-53 / enumeration 1-31
4. ☐ The drawings filed on \_\_\_\_\_ are acceptable.
5. ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has [...] been received. [...] not received. [...] been filed in parent application Serial No. \_\_\_\_\_, filed on \_\_\_\_\_
6. ☒ Note the attached Examiner's Amendment.
7. ☒ Note the attached Examiner Interview Summary Record, PTOL-413.
8. ☒ Note the attached Examiner's Statement of Reasons for Allowance.
9. ☐ Note the attached NOTICE OF REFERENCES CITED, PTO-892.
10. ☐ Note the attached INFORMATION DISCLOSURE CITATION, PTO-1449.

#### PART II.

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" indicated on this form. Failure to timely comply will result in the ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

1. ☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the claim or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
2. ☐ APPLICANT MUST MAKE THE DRAWING CHANGES INDICATED BELOW IN THE MANNER SET FORTH ON THE REVERSE SIDE OF THIS PAPER.
  - a. ☐ Drawing informalities are indicated on the NOTICE RE PATENT DRAWINGS, PTO-948, attached hereto or to Paper \_\_\_\_\_. CORRECTION IS REQUIRED.
  - b. ☐ The proposed drawing correction filed on \_\_\_\_\_ has been approved by the examiner. CORRECTION REQUIRED.
  - c. ☐ Approved drawing corrections are described by the examiner in the attached EXAMINER'S AMENDMENT. CORRECTION REQUIRED.
  - d. ☐ Formal drawings are now REQUIRED.

Any response to this letter should include in the upper right hand corner, the following information from the NOTICE OF ALLOWANCE AND ISSUE FEE DUE: ISSUE BATCH NUMBER, DATE OF THE NOTICE OF ALLOWANCE, AND SERIAL NUMBER.

#### Attachments:

- ☒ Examiner's Amendment
- ☒ Examiner Interview Summary Record, PTOL-413
- ☒ Reasons for Allowance
- ☐ Notice of References Cited, PTO-892
- ☐ Information Disclosure Citation, PTO-1449

- ☐ Notice of Informal Application, PTO-152
- ☒ Notice re Patent Drawings, PTO-948
- ☐ Listing of Bonded Draftsmen
- ☐ Other

THOMAS C. LEE  
SUPERVISORY PATENT EXAMINER  
GROUP 2700

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**Part III EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Craig P. Opperman on October 8, 1998.

2. The application has been amended as follows:

**IN THE CLAIMS:**

✓ ✓ ✓ ✓ ✓ ✓ ✓ ✓  
Canceled claims 3 to 5, 7-8, 24-25, 29-33 and 41.

<sup>7</sup>  
~~6.~~ (Twice Amended) The teleconferencing system of claim <sup>6</sup>~~27~~, wherein the system is further configured to:

F1  
(a) associate a participant with an identifier entered when the participant logs into any one of a plurality of workstations, and

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F1 (b) to route a subsequent call to initiate a videoconference with that participant to the workstation at which that participant is logged in.

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F2 <sup>8</sup>  
~~9.~~ (Twice Amended) The teleconferencing system of claim <sup>6</sup>~~27~~, wherein the system is further configured to:

[(b)] (a) convert signals of one format to another format to support originating and reproduction devices based on different signal format standards.

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<sup>10</sup>  
~~11.~~ (Twice Amended) The teleconferencing system of claim <sup>9</sup>~~10~~[11], further comprising:

F3 (a) at least a first and second codec at the first and second locations respectively, each configured to compress the AV signals and decompress compressed AV signals and wherein video and audio, compressed by the first codec, can be routed from the first location to the second location via the AV signal switcher without being decompressed at the third location.

---

F4 <sup>1</sup>  
~~23.~~ (Twice Amended) A method of conducting a teleconference among a plurality of participants having workstations with associated monitors for displaying visual images, and with associated AV capture and reproduction capabilities for capturing and reproducing video images and spoken audio of the participants, the workstations being interconnected by a first

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network, the network providing a data path for carrying digital data signals among the workstations, the method comprising the steps of:

(a) managing a data conference during which data is shared in real-time among a plurality of the participants and displayed on the monitors of their respective workstations;

F 4  
(b) [moving AV signals representing video images and spoken audio of the participants among said workstations;

(c)] managing a videoconference during which the video image and spoken audio of one of the participants is reproduced in real-time at the workstation of another of the participants;

[(d)](c)providing at least one AV [reproduction] device with associated capabilities of [reproducing] providing at least audio and/or video signals [at] to a workstation;

[(e)](d)[defining] providing at least one directory of the AV [reproduction] devices and each device's associated capabilities;[and]

[(f)](e) processing a workstation request for [a reproduction service] provision of audio or video signals to cause an appropriate AV [reproduction] device to provide the requested [reproduction service] signals to the workstation;

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(f) tracking the audio and video capabilities associated with each workstation; and

F<sup>4</sup>  
(g) processing a call, from a second to a first participant, based on the capabilities associated with the first participant, such that, if at least one capability of the set of capabilities consisting of audio capture, audio reproduction, video capture, video reproduction, and the capability of connecting to the first network, is not available to at least one of the participants, each of the plurality of participants can participate in the teleconference to the extent of the capabilities available to the participant.

6  
~~27.~~ (Twice Amended) A teleconferencing system for conducting a teleconference among a plurality of participants, the system comprising:

F<sup>5</sup>  
(a) a workstation associated with each of at least three participants, each workstation having at least one origination and at least one reproduction capability, each selected from the group consisting of audio, video and data origination/reproduction capabilities;

(b) a first network providing a data path for carrying digital data signals among the workstations;

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(c) [wherein the system is configured to manage a real-time data conference during which images based on digital data carried among the workstations is displayed on the workstation monitors of a plurality of the participants;

(d)] an AV path for carrying AV signals, representing video images and spoken audio of the participants;

FS  
[(e)] (d) a plurality of AV [reproduction] devices each having capabilities for [reproducing] providing audio and/or video signals [at] to a workstation [and configured to address a request for audio and/or video reproduction services generated at one of the workstations]; and

[(f)] (e) a directory of each AV [reproduction] device and its associated capabilities[; and], wherein the system is configured to:

[(g) an AV conference manager for managing the]

(i) manage a data conference during which images, based on digital data carried among the workstations, are displayed [on] at the workstation [monitor]s of a plurality of the participants;

(ii) manage [real-time] reproduction of [the] video images and audio [of one participant] at the workstation of [another] a participant[; where the AV conference manager

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and directory are configured to interact to] by addressing a workstation request for [an AV reproduction service, generated at a workstation,] provision of audio or video signals, to cause an appropriate AV [reproduction] device to provide the requested [reproduction service] signals to the workstation,

FS (iii) track the audio and video origination and reproduction capabilities associated with each workstation, and

(iv) to process a call, from a second to a first participant, based on which capabilities are associated with the workstation associated with first participant, such that

(1) if any capability of the set of capabilities consisting of audio capture, audio reproduction, video capture, video reproduction, and the capability of connecting to the first network, is not available to at least one of the participants, each participant can participate in the teleconference to the extent of the capabilities available to the participant.

23  
28. (Once Amended) A teleconferencing system for conducting a teleconference among a plurality of participants, the system comprising:

FS (a) a workstation

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- (i) associated with each of at least two participants, and
- (ii) having at least one origination and at least one reproduction capability,

(1) each selected from the group consisting of audio, video and data origination/reproduction capabilities;

(b) an AV path

- (i) configured to carry AV signals,
  - (1) representing video images and spoken audio of the participants
  - (ii) among the workstations;

(c) at least one AV [reproduction] device

(i) having capabilities for [reproducing] providing at least audio and/or video signals

- (1) [at] to a workstation, and
- (ii) configured to address a request
  - (1) for providing audio and/or video [reproduction services] signals
  - (2) [generated at] to one of the workstations; and

(d) [a] at least one directory of

- (i) each workstation and its origination/reproduction capabilities, and or

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- (ii) each AV reproduction device and its associated capabilities,

wherein the system is configured

- (i) to manage the [real-time] reproduction
- (1) of [the] video images and audio
  - (2) [of one participant
  - (3)] at the workstation of a[nother] participant

- (ii) by interacting with the directory

- (iii) to address a request,

(1) generated at a workstation, [for an AV reproduction service audio and/or video signals],

- (2) [generated at a workstation] audio and/or video signals,

- (iv) to cause an appropriate AV [reproduction] device

(1) to provide the requested [reproduction service] signals to the workstation

(v) to track the audio and video origination and reproduction capabilities associated with each workstation, and

(vi) to process a call, from a second to a first participant, based on which capabilities are associated with the first participant, and to manage a teleconference among a plurality of participants such that, if at least one capability from the set of capabilities consisting of audio capture, audio reproduction, video capture, video reproduction, and the

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capability conducting a data conference is not available to any participant, each participant can participate in the teleconference to the extent of the capabilities available to that participant, and

wherein the system is further configured

- (i) to associate a participant
  - (1) with each workstation at which the participant logs in and
- (ii) to route a videoconference call,
  - (1) for that participant,
  - (2) to the workstation at which that participant is logged in.

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~~39~~: (Once Amended) A method for conducting a teleconference among a plurality of participants having workstations with associated monitors for displaying visual images, and with associated AV capture and reproduction capabilities for capturing and reproducing video images and spoken audio of the participants, the workstations being interconnected by a first network, the network providing a data path for carrying digital data signals among the workstations, the method comprising the steps of:

(a) managing a data conference during which data is shared in real-time among a plurality of the participants and displayed on the monitors of their respective workstations;

(b) [moving AV signals representing video images and spoken audio of the

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participants among said workstations;

(c)] managing a videoconference during which the video image and spoken audio of one of the participants is reproduced in real-time at the workstation of another of the participants;

F<sup>7</sup> [(d)] (c) providing at least one AV [reproduction] device with associated capabilities of [reproducing] providing at least audio and/or video signals [at] to a workstation;

[(e)] (d) defining at least one directory of AV [reproduction] devices and each device's associated capabilities;

[(f)] (e) processing a request for a [reproduction service] audio and/or video signals to cause an appropriate AV [reproduction] device to provide the requested [reproduction service] signals to the workstation; and

[(g)](f) managing connections between participants by

- (i) associating a participant
  - (1) with each workstation at which the participant logs in and
- (ii) routing a videoconference call,
  - (1) for that participant,

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F<sup>7</sup>

(2) to the workstation at which that participant is logged in,  
wherein the step of managing the video conference is conducted among a plurality of  
participants such that, if at least one capability of the set of capabilities consisting of audio  
capture, audio reproduction, video capture, video reproduction, and the capability of  
connecting to the first network, is not available to at least one of the participants, each of the  
plurality of participants can participate in the teleconference to the extent of the capabilities  
available to the participant.

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[ Please add the following claims: ✓

F<sup>8</sup>

<sup>20</sup>  
~~42~~. The system of claim <sup>6</sup>~~27~~, wherein the AV device

- (i) has associated capabilities of any one of the group consisting of
- (1) storing one or more of digital data, audio or video signals;
  - (2) retrieving one or more of stored digital data, audio, and video signals;
  - (3) generating one or more of digital data, audio and video signals; and
  - (4) accessing a remote source of digital data, audio and video signals and
- providing the accessed signals to a workstation.

<sup>21</sup>  
~~43~~. The system of claim <sup>20</sup>~~42~~, wherein the AV device is any one or more of:

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- 8
- (a) a VCR;
  - (b) a laser disk player;
  - (c) a compact disk player;
  - (d) a multimedia resource;
  - (e) a television signal source; and
  - (f) a fax machine.

29  
44. The system of claim <sup>23</sup>28, wherein the AV device

- (i) has associated capabilities of any one of the group consisting of
  - (1) storing one or more of digital data, audio or video signals;
  - (2) retrieving one or more of stored digital data, audio, and video signals;
  - (3) generating one or more of digital data, audio and video signals; and
  - (4) accessing a remote source of digital data, audio and video signals and providing the accessed signals to a workstation.

30  
45. The system of claim <sup>29</sup>44, wherein the AV device is any one or more of:

- (a) a VCR;
  - (b) a laser disk player;
  - (c) a compact disk player;
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- (d) a multimedia resource;
- (e) a television signal source; and
- (f) a fax machine.

<sup>3</sup>  
~~46~~. The method of claim <sup>1</sup>~~23~~, wherein the AV device

- (i) has associated capabilities of any one of the group consisting of
  - (1) storing one or more of digital data, audio or video signals;
  - (2) retrieving one or more of stored digital data, audio, and video signals;
  - (3) generating one or more of digital data, audio and video signals; and
  - (4) accessing a remote source of digital data, audio and video signals and

providing the accessed signals to a workstation.

<sup>4</sup>  
~~47~~. The apparatus of claim <sup>3</sup>~~46~~, wherein the AV device is any one or more of:

- (a) a VCR;
- (b) a laser disk player;
- (c) a compact disk player;
- (d) a multimedia resource;
- (e) a television signal source; and
- (f) a fax machine.

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<sup>34</sup>  
~~48~~. The method of claim <sup>32</sup>~~39~~, wherein the AV device

- (I) has associated capabilities of any one of the group consisting of
- (1) storing one or more of digital data, audio or video signals;
  - (2) retrieving one or more of stored digital data, audio, and video signals;
  - (3) generating one or more of digital data, audio and video signals; and
  - (4) accessing a remote source of digital data, audio and video signals and providing the accessed signals to a workstation.

<sup>35</sup>  
~~49~~. The method of claim <sup>34</sup>~~48~~, wherein the AV device is any one or more of:

- (a) a VCR;
- (b) a laser disk player;
- (c) a compact disk player;
- (d) a multimedia resource;
- (e) a television signal source; and
- (f) a fax machine.

<sup>22</sup>  
~~50~~. The system of claim <sup>6</sup>~~27~~, wherein the AV path

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(i) is at least partly defined by unshielded twisted pair (UTP) wiring.

<sup>31</sup>  
~~51~~. The system of claim <sup>23</sup>~~28~~, wherein the AV path

(i) is at least partly defined by unshielded twisted pair (UTP) wiring.

<sup>5</sup>  
~~52~~. The method of claim <sup>1</sup>~~23~~, wherein:

at least the audio and/or the video signals are delivered to at least one workstation over a UTP network.

<sup>36</sup>  
~~53~~. The method of claim <sup>32</sup>~~39~~, wherein:

at least the audio and/or the video signals are delivered to at least one workstation over a UTP network.--

3. The following is an Examiner's Statement of Reasons for Allowance:

The prior art of record fails to teach or suggest individually or in combination a method of teleconferencing by providing a directory of the AV devices and each device's associated capabilities and processing a call based on the capabilities of the participants to allow participation based on the extent of the capabilities available to the participant.

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4. Pursuant to MPEP 606.01, the title has been changed to read:

“SYSTEM FOR PROVIDING A DIRECTORY OF AV DEVICES AND CAPABILITIES AND CALL PROCESSING SUCH THAT EACH PARTICIPANT PARTICIPATES TO THE EXTENT OF CAPABILITIES AVAILABLE.”

*Conclusion*

5. Any inquiry concerning this communication should be directed to Anderson Chen, whose telephone number is (703) 305-9593 or via email, [anderson.chen@uspto.gov](mailto:anderson.chen@uspto.gov). The Examiner can normally be reached Monday through Friday from 8:00 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Thomas C. Lee, can be reached at (703) 305-9717.

Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9600.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

(703) 308-9051, (for formal communications intended for entry)

**Or:**


(703) 308-5359 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

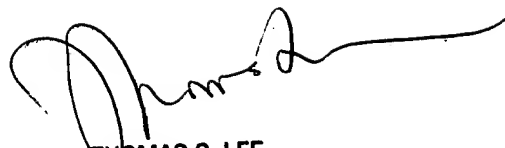
Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

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Anderson Chen  
October 12, 1998

  
THOMAS C. LEE  
SUPERVISORY PATENT EXAMINER  
GROUP 2700